

10/591603

AP20 Rec'd PCT/PTO 05 SEP 2006

SEQUENCE LISTING

<110> Marine Biotechnology Institute Co., ltd

<120> A method for producing picolinic acids

<130> PH-2375-PCT

<140>

<141>

<150> JP 2004-061238

<151> 2004-03-04

<160> 10

<170> PatentIn version 3.1

<210> 1

<211> 1377

<212> DNA

<213> Artificial

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<223> synthetic gene

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gccgatcaga gtcttatga gctggagctt gagcgggttt ttggtcgctc ttggctgtta 180

cttggcacg agagtcatgt gcctgaaacc gggacttcc tggccactta catggcga 240

gatccggtgg ttatggtgcg acagaaagac aagagcatca aggtgttcct taaccagtgc 300

cgacaccgcg gcatgcgtat ctgccgctcg gacgccggca acgccaaggc tttcacctgc 360

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Thr Asn Trp Thr Pro Glu Ala Ile Arg Gly Leu Val Asp Gln Glu Lys
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Gly Leu Leu Asp Pro Arg Ile Tyr Ala Asp Gln Ser Leu Tyr Glu Leu
35 40 45

Glu Leu Glu Arg Val Phe Gly Arg Ser Trp Leu Leu Leu Gly His Glu
50 55 60

Ser His Val Pro Glu Thr Gly Asp Phe Leu Ala Thr Tyr Met Gly Glu
65 70 75 80

Asp Pro Val Val Met Val Arg Gln Lys Asp Lys Ser Ile Lys Val Phe
85 90 95

Leu Asn Gln Cys Arg His Arg Gly Met Arg Ile Cys Arg Ser Asp Ala
100 105 110

Gly Asn Ala Lys Ala Phe Thr Cys Ser Tyr His Gly Trp Ala Tyr Asp
115 120 125

Ile Ala Gly Lys Leu Val Asn Val Pro Phe Glu Lys Glu Ala Phe Cys

130

135

140

Asp Lys Lys Glu Gly Asp Cys Gly Phe Asp Lys Ala Glu Trp Gly Pro
145 150 155 160

Leu Gln Ala Arg Val Ala Thr Tyr Lys Gly Leu Val Phe Ala Asn Trp
165 170 175

Asp Val Gln Ala Pro Glu Leu Glu Thr Tyr Leu Gly Asp Ala Arg Pro
180 185 190

Tyr Met Asp Val Met Leu Asp Arg Thr Pro Ala Gly Thr Val Ala Ile
195 200 205

Gly Gly Met Gln Lys Trp Val Ile Pro Cys Asn Trp Lys Phe Ala Ala
210 215 220

Glu Gln Phe Cys Ser Asp Met Tyr His Ala Gly Thr Met Ser His Leu
225 230 235 240

Ser Gly Ile Leu Ala Gly Met Pro Pro Glu Met Asp Leu Ser His Ala
245 250 255

Gln Val Pro Thr Lys Gly Asn Gln Phe Arg Ala Gly Trp Gly Gly His
260 265 270

Gly Ser Gly Trp Phe Val Asp Glu Pro Gly Met Leu Met Ala Val Met
275 280 285

Gly Pro Lys Val Thr Gln Tyr Trp Thr Glu Gly Pro Ala Ala Asp Leu
290 295 300

Ala Glu Gln Arg Leu Gly His Thr Met Pro Val Arg Arg Met Phe Gly
305 310 315 320

Gln His Met Thr Ile Phe Pro Thr Cys Ser Phe Leu Pro Ala Ile Asn
325 330 335

Thr Ile Arg Thr Trp His Pro Arg Gly Pro Asn Glu Ile Glu Val Trp
340 345 350

Ala Phe Thr Leu Val Asp Ala Asp Ala Pro Ala Glu Ile Lys Glu Glu
355 360 365

Tyr Arg Arg His Asn Ile Arg Thr Phe Ser Ala Gly Gly Val Phe Glu
370 375 380

Gln Asp Asp Gly Glu Asn Trp Val Glu Ile Gln Lys Gly Leu Arg Gly
385 390 395 400

Tyr Lys Ala Lys Ser Gln Pro Leu Asn Ala Gln Met Gly Leu Gly Arg
405 410 415

Ser Gln Thr Gly His Pro Asp Phe Pro Gly Asn Val Gly Tyr Val Tyr
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Ser Glu Pro Ser Trp Ala Thr Leu Lys Pro
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20

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20